

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	272	yoona-k\$.in.	US-PGPUB; USPAT	OR	ON	2005/02/21 15:45
L2	45	yoona-kwang\$.in.	US-PGPUB; USPAT	OR	ON	2005/02/21 15:52
L3	3	"423945".ap.	US-PGPUB; USPAT	OR	ON	2005/02/21 15:51
L4	75	song-ki\$.in.	US-PGPUB; USPAT	OR	ON	2005/02/21 15:53
L5	249489	resist	US-PGPUB; USPAT	OR	ON	2005/02/21 15:53
L6	8	4 and 5	US-PGPUB; USPAT	OR	ON	2005/02/21 15:53
L7	2	6 not 2	US-PGPUB; USPAT	OR	ON	2005/02/21 15:53

PALM

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Song

6860418  
6844134

10/3428  
423945

10/719,051  
Date Not 2002

L8 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2005:120982 CAPLUS  
DN 142:156540  
TI Manufacture of fluorine-containing compounds, fluorine-containing  
polymers, and resist compositions therewith  
IN Takebe, Yoko; Kaneko, Isamu  
PA Asahi Glass Company, Limited, Japan  
SO PCT Int. Appl., 30 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005012372	A1	20050210	WO 2004-JP10856	20040729
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRAI JP 2003-284156 A 20030731  
JP 2004-88337 A 20040325

AB A fluorine-containing polymer is disclosed which has a functional group and exhibits high transparency over a wide wavelength range. Also disclosed is a resist composition composed of such a fluorine-containing polymer. A fluorine-containing polymer (A) has a monomer unit wherein a fluorine-containing diene represented by the formula (1) below is polymerized A method for producing the fluorine-containing polymer (A) and a resist composition using the

fluorine-containing polymer (A) as the base material are also disclosed. CF2 = CFCH2CH-Q-CH2CH = CH2 (1) In the above formula, Q represents (CH2)aC(CF3)2OR4 (wherein a is an integer of 0-3, and R4 represents an alkyl group having 20 or less carbon atoms which may have an ether oxygen atom, a fluorine-containing alkyl group, an alkoxy carbonyl group having 6 or less carbon atoms, or CH2R5 (wherein R5 is an alkoxy carbonyl group having 6 or less carbon atoms)), or (CH2)dCOOR6 (wherein d is 0 or 1, and R6 represents an hydrogen atom, an alkyl group having 20 or less carbon atoms or a fluorine-containing alkyl group).

IT 795298-39-4P

RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(ring-closing; manufacture of fluorine-containing compds.,

fluorine-containing polymers, and resist compns. therewith)

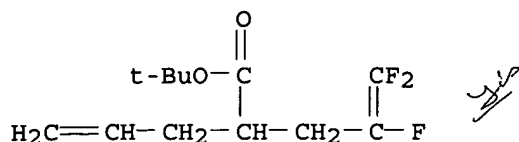
RN 795298-39-4 CAPLUS

CN 4-Pentenoic acid, 4,5,5-trifluoro-2-(2-propenyl)-, 1,1-dimethylethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 795298-38-3

CMF C12 H17 F3 O2



L8 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:652509 CAPLUS

DN 141:197358

TI Photosensitive polymer including fluorine, resist composition containing the same and patterning method using the resist composition

IN Yoon, Kwang-Sub; Song, Ki-Yong

PA S. Korea

SO U.S. Pat. Appl. Publ., 9 pp.

CODEN: USXXCO

DT Patent

LA English

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004157151	A1	20040812	US 2003-719651	20031121
PRAI	KR 2002-73051	A	20021122		

AB A photosensitive polymer including fluorine, a resist composition containing the

same and a patterning method for IC fabrication using the resist composition are provided. The photosensitive polymer having at least one selected from the group consisting of fluorine-substituted or unsubstituted alkyl ester, tetrahydropyranyl ester, tetrahydrofuranlyl ester, nitrile, amide, carbonyl and hexafluoro alkyl having a hydrophilic group, and a trifluorovinyl derivative monomer as a repeating unit and having a weight average

mol. weight of about 3,000 to about 100,000. The photosensitive polymer exhibits high transmittance for a light source of F2 (157 nm), high dry etching resistance, and has characteristics suitable to realize an ultrafine pattern size.

IT 736996-80-8P 736996-81-9P 736996-82-0P

736996-86-4P 736996-87-5P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photosensitive polymer including fluorine for resist composition)

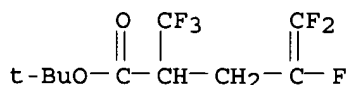
RN 736996-80-8 CAPLUS

CN 4-Pentenoic acid, 4,5,5-trifluoro-2-(trifluoromethyl)-, 1,1-dimethylethyl ester, polymer with 4-ethenyl- $\alpha,\alpha$ -bis(trifluoromethyl)benzenemethanol (9CI) (CA INDEX NAME)

CM 1

CRN 736996-76-2

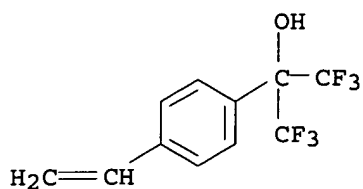
CMF C10 H12 F6 O2



CM 2

CRN 2386-82-5

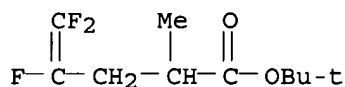
CMF C11 H8 F6 O



RN 736996-81-9 CAPLUS  
 CN 4-Pentenoic acid, 4,5,5-trifluoro-2-methyl-, 1,1-dimethylethyl ester,  
 polymer with 4-ethenyl- $\alpha,\alpha$ -bis(trifluoromethyl)benzenemethanol  
 (9CI) (CA INDEX NAME)

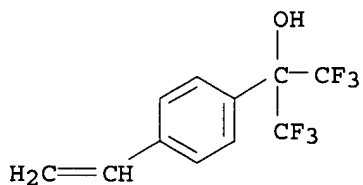
CM 1

CRN 736996-78-4  
 CMF C10 H15 F3 O2



CM 2

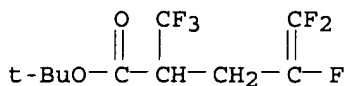
CRN 2386-82-5  
 CMF C11 H8 F6 O



RN 736996-82-0 CAPLUS  
 CN 4-Pentenoic acid, 4,5,5-trifluoro-2-(trifluoromethyl)-, 1,1-dimethylethyl  
 ester, polymer with 1,1-dimethylethyl 2-(trifluoromethyl)-2-propenoate and  
 4-ethenyl- $\alpha,\alpha$ -bis(trifluoromethyl)benzenemethanol (9CI) (CA  
 INDEX NAME)

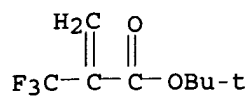
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CRN 736996-76-2  
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CM 2

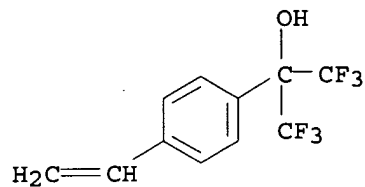
CRN 105935-24-8  
 CMF C8 H11 F3 O2



CM 3

CRN 2386-82-5

CMF C11 H8 F6 O



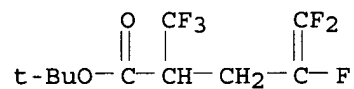
RN 736996-86-4 CAPLUS

CN 4-Pentenoic acid, 4,5,5-trifluoro-2-(trifluoromethyl)-, 1,1-dimethylethyl ester, polymer with 4-ethenyl- $\alpha,\alpha$ -bis(trifluoromethyl)benzenemethanol and 2,2,2-trifluoro-1-(trifluoromethyl)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 736996-76-2

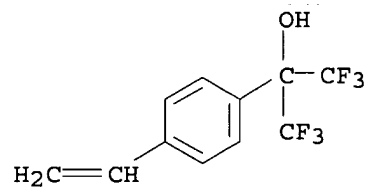
CMF C10 H12 F6 O2



CM 2

CRN 2386-82-5

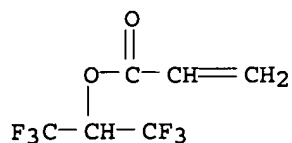
CMF C11 H8 F6 O



CM 3

CRN 2160-89-6

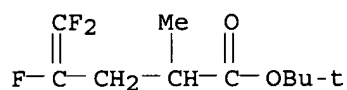
CMF C6 H4 F6 O2



RN 736996-87-5 CAPLUS  
 CN 4-Pentenoic acid, 4,5,5-trifluoro-2-methyl-, 1,1-dimethylethyl ester, polymer with 4-ethenyl- $\alpha,\alpha$ -bis(trifluoromethyl)benzenemethanol and 2,2,2-trifluoro-1-(trifluoromethyl)ethyl 2-propenoate (9CI) (CA INDEX NAME)

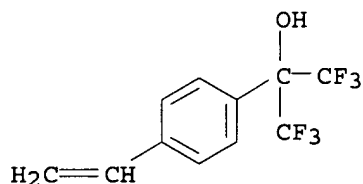
CM 1

CRN 736996-78-4  
 CMF C10 H15 F3 O2



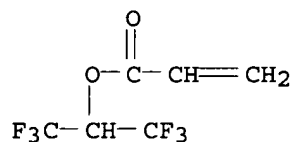
CM 2

CRN 2386-82-5  
 CMF C11 H8 F6 O



CM 3

CRN 2160-89-6  
 CMF C6 H4 F6 O2



L8 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2004:635351 CAPLUS  
 DN 141:424972  
 TI A new monocyclic fluoropolymer for 157-nm photoresists  
 AU Sasaki, Takashi; Takebe, Yoko; Eda, Masataka; Yokokoji, Osamu; Irie, Shigeo; Otoguro, Akihiko; Fujii, Kiyoshi; Itani, Toshiro  
 CS Research Center, Asahi Glass Co., Ltd., Yokohama, 221-8755, Japan  
 SO Journal of Photopolymer Science and Technology (2004), 17(4), 639-644  
 CODEN: JSTEED; ISSN: 0914-9244

PB Technical Association of Photopolymers, Japan

DT Journal

LA English

AB We earlier developed a series of fluoropolymers (FPRs) for use as first-generation 157-nm photoresist polymers. These FPRs have a partially fluorinated monocyclic structure and provide excellent transparency. However, their etching resistance is low (half that of conventional KrF resists) and an insufficient dissoln. rate in tetramethylammonium hydroxide (TMAH) solution. To improve the characteristics of these polymers, while retaining high transparency, we had to redesign the main chain fluoropolymer structure. In this paper, we describe a new monocyclic fluoropolymer structure for a second-generation 157-nm photoresist polymer. This structure also has a fluorine atom in the polymer main chain, as well as a fluoro-containing acidic alc. group. We synthesized two types of fluoropolymers, ASF-1 and ASF-2. We found that ASF-1 had transparency of 0.18  $\mu\text{m}^{-1}$ , better than that of the FPRs, and the etching resistance was improved. Unfortunately, the dissoln. rate was poor. On the other hand, ASF-2 showed even better transparency of 0.1  $\mu\text{m}^{-1}$ , improved etching resistance, and a dissoln. rate of more than 600 nm/s, which is sufficient for use as a resist. The introduction of a protecting group (e.g., the methoxymethyl or adamantylmethoxymethyl group) to the hydroxyl group of ASF-2 can be done after the polymerization reaction. Using partially protected ASF-2 with an appropriate protecting group, we were able to fabricate a sub-60-nm line-and-space pattern.

IT 795298-32-7P 795298-39-4P 795298-41-8P

RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(preparation and properties of monocyclic fluoropolymers for 157-nm photoresists)

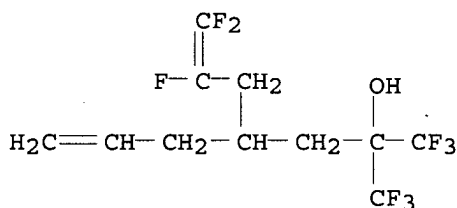
RN 795298-32-7 CAPLUS

CN 6-Hepten-2-ol, 1,1,1,6,7,7-hexafluoro-4-(2-propenyl)-2-(trifluoromethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 795298-31-6

CMF C11 H11 F9 O



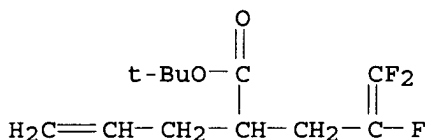
RN 795298-39-4 CAPLUS

CN 4-Pentenoic acid, 4,5,5-trifluoro-2-(2-propenyl)-, 1,1-dimethylethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 795298-38-3

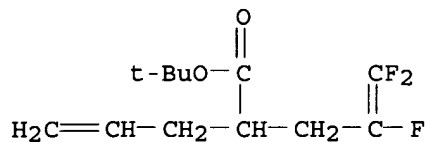
CMF C12 H17 F3 O2



RN 795298-41-8 CAPLUS  
 CN 4-Pentenoic acid, 4,5,5-trifluoro-2-(2-propenyl)-, 1,1-dimethylethyl  
 ester, polymer with 1,1,1,6,7,7-hexafluoro-4-(2-propenyl)-2-  
 (trifluoromethyl)-6-hepten-2-ol (9CI) (CA INDEX NAME)

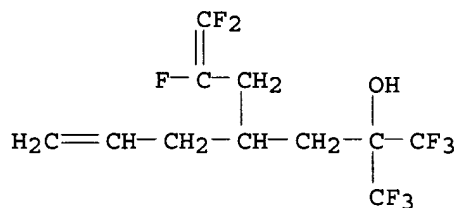
CM 1

CRN 795298-38-3  
 CMF C12 H17 F3 O2



CM 2

CRN 795298-31-6  
 CMF C11 H11 F9 O



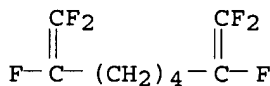
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

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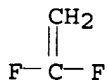
L5 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2003:656722 CAPLUS  
 DN 139:197936  
 TI Halogenated monomers and amorphous polymers and their manufacture  
 IN Thomas, Brian; Zhu, Jingsong  
 PA Photon-X, Inc., USA  
 SO PCT Int. Appl., 28 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003068718	A2	20030821	WO 2003-US4057	20030212
	WO 2003068718	A3	20030925		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003181616	A1	20030925	US 2003-364413	20030212
PRAI	US 2002-356432P	P	20020212		
OS	MARPAT 139:197936				
IT	582304-11-8P				
	RL: IMF (Industrial manufacture); PREP (Preparation) (fluorinated vinyl monomers for amorphous polymers)				
RN	582304-11-8 CAPLUS				
CN	1,7-Octadiene, 1,1,2,7,8,8-hexafluoro-, polymer with 1,1-difluoroethene (8CI, 9CI) (CA INDEX NAME)				
CM	1				
CRN	4004-98-2				
CMF	C8 H8 F6				



CM 2

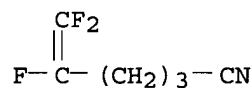
CRN 75-38-7  
 CMF C2 H2 F2



L5 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2002:487624 CAPLUS  
 DN 137:64371  
 TI Crosslinkable fluorosulfonated nitrile elastomers based on vinylidene

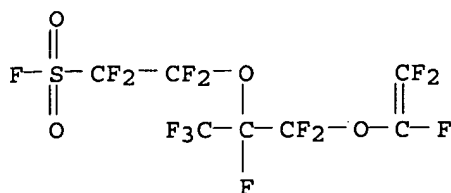
fluoride with low glass temperature and methods for preparing same  
 IN Ameduri, Bruno Michel; Manseri, Abdellatif; Boucher, Mario  
 PA Hydro-Quebec, Can.  
 SO PCT Int. Appl., 53 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA French  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002050142	A1	20020627	WO 2001-CA1439	20011012
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	CA 2328433	AA	20020620	CA 2000-2328433	20001220
	CA 2427481	AA	20020627	CA 2001-2427481	20011012
	AU 2002013687	A5	20020701	AU 2002-13687	20011012
	EP 1355962	A1	20031029	EP 2001-981986	20011012
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004526000	T2	20040826	JP 2002-552032	20011012
	US 2004097675	A1	20040520	US 2003-432957	20031106
PRAI	CA 2000-2328433	A	20001220		
	WO 2001-CA1439	W	20011012		
OS	MARPAT 137:64371				
IT	438627-64-6P				
	RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process) (rubber; crosslinkable fluorosulfonated nitrile elastomers based on vinylidene fluoride with low glass temperature and good heat resistance)				
RN	438627-64-6 CAPLUS				
CN	Ethanesulfonyl fluoride, 2-[1-[difluoro[(trifluoroethenyl)oxy]methyl]- 1,2,2,2-tetrafluoroethoxy]-1,1,2,2-tetrafluoro-, polymer with 1,1-difluoroethene and 5,6,6-trifluoro-5-hexenenitrile (9CI) (CA INDEX NAME)				
CM	1				
CRN	203928-94-3				
CMF	C6 H6 F3 N				



NO

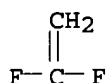
CM 2  
 CRN 16090-14-5  
 CMF C7 F14 O4 S



16

CM 3

CRN 75-38-7  
CMF C2 H2 F2



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 2000:368269 CAPLUS  
DN 133:18003  
TI Functional trifluorovinyl monomers and their copolymerization with  
fluorinated olefins  
IN Petrova, Petya; Ameduri, Bruno; Kostov, Georges; Boutevin, Bernard  
PA Solvay (Societe Anonyme), Belg.  
SO PCT Int. Appl., 39 pp.  
CODEN: PIXXD2

DT Patent  
LA French

FAN.CNT 1

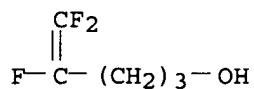
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000031009	A1	20000602	WO 1999-EP9147	19991122
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	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	FR 2786178	A1	20000526	FR 1998-14931	19981125
	EP 1133462	A1	20010919	EP 1999-972616	19991122
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002530359	T2	20020917	JP 2000-583838	19991122
	US 6753392	B1	20040622	US 2001-856774	20010731
	US 2004198702	A1	20041007	US 2004-831802	20040426
PRAI	FR 1998-14931	A	19981125		
	WO 1999-EP9147	W	19991122		
	US 2001-856774	A3	20010731		
IT	231963-66-9P 237392-99-3P 249935-44-2DP, hydrolyzed 249935-44-2P 253432-98-3P				
	RL: IMF (Industrial manufacture); PREP (Preparation) (functional trifluorovinyl monomers and their copolymn. with fluorinated olefins)				
RN	231963-66-9 CAPLUS				

CN 4-Penten-1-ol, 4,5,5-trifluoro-, polymer with tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 109993-33-1

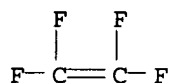
CMF C5 H7 F3 O



CM 2

CRN 116-14-3

CMF C2 F4



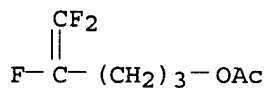
RN 237392-99-3 CAPLUS

CN 4-Penten-1-ol, 4,5,5-trifluoro-, acetate, polymer with 1,1-difluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 219866-33-8

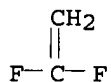
CMF C7 H9 F3 O2



CM 2

CRN 75-38-7

CMF C2 H2 F2



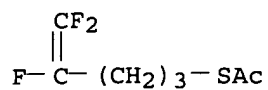
RN 249935-44-2 CAPLUS

CN Ethanethioic acid, S-(4,5,5-trifluoro-4-pentenyl) ester, polymer with 1,1-difluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 249935-40-8

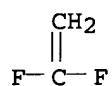
CMF C7 H9 F3 O S



CM 2

CRN 75-38-7

CMF C2 H2 F2



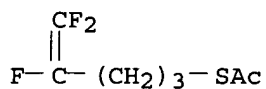
RN 249935-44-2 CAPLUS

CN Ethanethioic acid, S-(4,5,5-trifluoro-4-pentenyl) ester, polymer with 1,1-difluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 249935-40-8

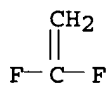
CMF C7 H9 F3 O S



CM 2

CRN 75-38-7

CMF C2 H2 F2



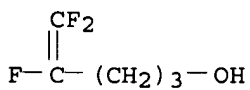
RN 253432-98-3 CAPLUS

CN 4-Penten-1-ol, 4,5,5-trifluoro-, polymer with 1-propene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 109993-33-1

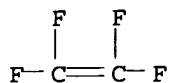
CMF C5 H7 F3 O



CM 2

CRN 116-14-3

CMF C2 F4



CM 3

CRN 115-07-1

CMF C3 H6



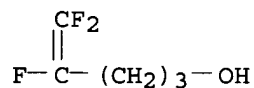
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1999:721381 CAPLUS  
DN 132:79624  
TI Synthesis and polymerization of fluorinated monomers bearing a reactive lateral group-part 8-study of the tetrafluoroethylene-propylene rubber modification by 4,5,5-trifluoro-4-penten-1-ol as a comonomer  
AU Ameduri, B.; Boutevin, B.; Kostov, G.; Petrov, P.; Petrova, P.  
CS ESA 5076, Laboratory of Macromolecular Chemistry, Ecole Nationale Supérieure de Chimie, Montpellier, 34296, Fr.  
SO Journal of Polymer Science, Part A: Polymer Chemistry (1999), 37(21), 3991-3999  
CODEN: JPACEC; ISSN: 0887-624X  
PB John Wiley & Sons, Inc.  
DT Journal  
LA English  
IT 253432-98-3P, Tetrafluoroethylene-propylene-4,5,5-trifluoro-4-penten-1-ol copolymer  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(rubber; tetrafluoroethylene-propylene rubber modification by 4,5,5-trifluoro-4-penten-1-ol comonomer)  
RN 253432-98-3 CAPLUS  
CN 4-Penten-1-ol, 4,5,5-trifluoro-, polymer with 1-propene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 109993-33-1

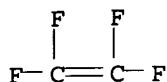
CMF C5 H7 F3 O



CM 2

CRN 116-14-3

CMF C2 F4



CM 3

CRN 115-07-1

CMF C3 H6



RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:625772 CAPLUS

DN 131:337430

TI Synthesis and polymerization of fluorinated monomers bearing a reactive lateral group. Part 10. Copolymerization of vinylidene fluoride (VDF) with 5-thioacetoxypentene for the obtaining of a novel PVDF containing mercaptan side-groups

AU Ameduri, Bruno; Boutevin, Bernard; Kostov, Georges K.; Petrova, Petya

CS ESA 5076, Ecole Nationale Supérieure de Chimie, Montpellier, 34296, Fr.

SO Designed Monomers and Polymers (1999), 2(4), 267-285

CODEN: DMPOF3; ISSN: 1385-772X

PB VSP BV

DT Journal

LA English

IT **249935-44-2P**, 1,1,2-Trifluoro-5-thioacetoxypentene-vinylidene fluoride copolymer

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(preparation of fluorinated thioacetoxypentene-containing monomers and copolymers).

with

vinylidene fluoride to obtain thiol-containing fluoropolymer subsequently crosslinked with hexadiene)

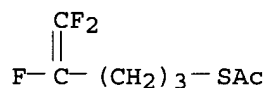
RN 249935-44-2 CAPLUS

CN Ethanethioic acid, S-(4,5,5-trifluoro-4-pentenyl) ester, polymer with 1,1-difluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 249935-40-8

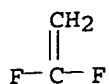
CMF C7 H9 F3 O S



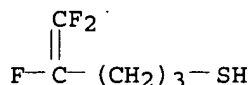
CM 2

CRN 75-38-7

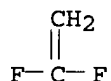
CMF C2 H2 F2



IT 249935-45-3DP, hydrolyzed, crosslinked polymers with 1,5-hexadiene  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of fluorinated thioacetoxymonomers and copolymers.  
 with vinylidene fluoride to obtain thiol-containing fluoropolymer subsequently  
 crosslinked with hexadiene)  
 RN 249935-45-3 CAPLUS  
 CN 4-Pentene-1-thiol, 4,5,5-trifluoro-, polymer with 1,1-difluoroethene (9CI)  
 (CA INDEX NAME)  
 CM 1  
 CRN 249935-42-0  
 CMF C5 H7 F3 S



CM 2  
 CRN 75-38-7  
 CMF C2 H2 F2



RE.CNT 64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1999:394003 CAPLUS  
 DN 131:45226  
 TI Epoxides containing a perfluorovinyl group and polymers made from them  
 IN Hung, Ming-hong; Rozen, Shlomo  
 PA E. I. Du Pont de Nemours & Co., USA  
 SO U.S., 4 pp., Cont. of U.S. Ser. No. 991,401.  
 CODEN: USXXAM

DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5914412	A	19990622	US 1994-243428	19940516
	US 6028165	A	20000222	US 1999-277939	19990329
PRAI	US 1990-530376	A1	19900430		
	US 1992-991401	A1	19921215		
	US 1994-243428	A3	19940516		

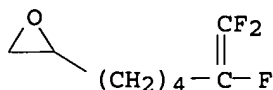
IT 227319-32-6P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (epoxides containing a perfluorovinyl group and polymers)  
 RN 227319-32-6 CAPLUS  
 CN Oxirane, (5,6,6-trifluoro-5-hexenyl)-, homopolymer (9CI) (CA INDEX NAME)



CM 1

CRN 133373-38-3

CMF C8 H11 F3 O



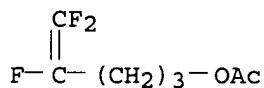
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN  
AN 1999:371598 CAPLUS  
DN 131:158046  
TI Synthesis and Polymerization of Fluorinated Monomers Bearing a Reactive Lateral Group. 9.Bulk Copolymerization of Vinylidene Fluoride with 4,5,5-Trifluoro-4-ene Pentyl Acetate  
AU Ameduri, Bruno; Bauduin, Gerard; Boutevin, Bernard; Kostov, Georges; Petrova, Petya  
CS Laboratory of Macromolecular Chemistry, ESA (5076) CNRS Ecole Nationale Supérieure de Chimie de Montpellier, Montpellier, 34296, Fr.  
SO Macromolecules (1999), 32(14), 4544-4550  
CODEN: MAMOBX; ISSN: 0024-9297  
PB American Chemical Society  
DT Journal  
LA English  
IT 237392-99-3P, 4,5,5-Trifluoro-4-penten-1-yl acetate-vinylidene fluoride copolymer  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and characterization of)  
RN 237392-99-3 CAPLUS  
CN 4-Penten-1-ol, 4,5,5-trifluoro-, acetate, polymer with 1,1-difluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 219866-33-8

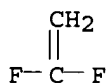
CMF C7 H9 F3 O2



CM 2

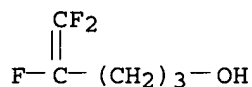
CRN 75-38-7

CMF C2 H2 F2

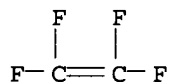


RE.CNT 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1999:346616 CAPLUS  
 DN 131:102605  
 TI Synthesis and polymerization of fluorinated monomers bearing a reactive lateral group. Part 7. Copolymerization of tetrafluoroethylene with  $\omega$ -hydroxy trifluorovinyl monomers  
 AU Ameduri, Bruno; Bauduin, Gerard; Kostov, Georges K.; Petrova, Petya; Rousseau, Alain  
 CS Ecole Nationale Supérieure de Chimie, Montpellier, 34296, Fr.  
 SO Journal of Applied Polymer Science (1999), 73(2), 189-202  
 CODEN: JAPNAB; ISSN: 0021-8995  
 PB John Wiley & Sons, Inc.  
 DT Journal  
 LA English  
 IT 231963-66-9P, Tetrafluoroethylene-4,5,5-trifluoro-4-penten-1-ol copolymer  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation, characterization and properties of)  
 RN 231963-66-9 CAPLUS  
 CN 4-Penten-1-ol, 4,5,5-trifluoro-, polymer with tetrafluoroethene (9CI) (CA INDEX NAME)  
  
 CM 1  
  
 CRN 109993-33-1  
 CMF C5 H7 F3 O

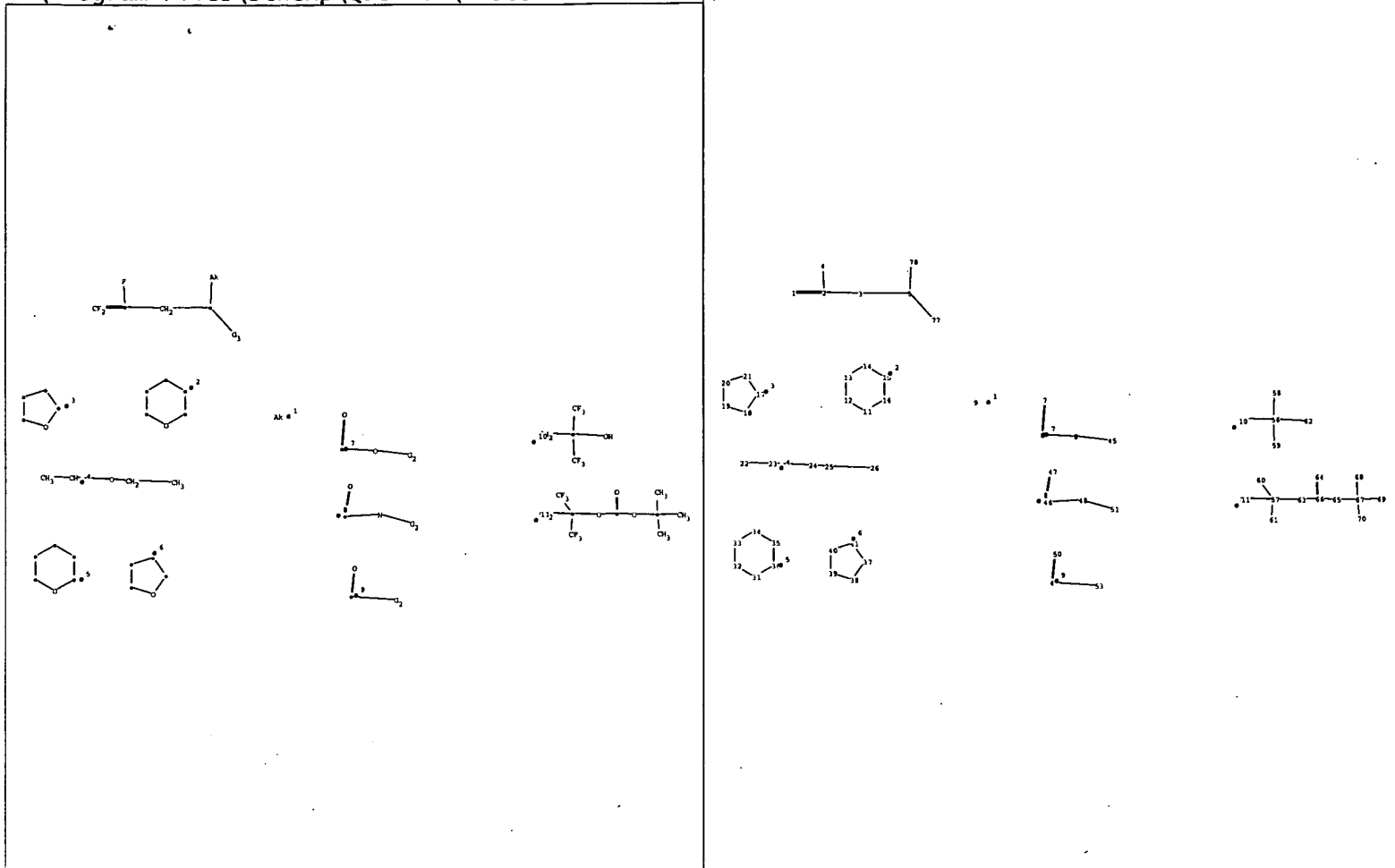


CM 2  
  
 CRN 116-14-3  
 CMF C2 F4



RE.CNT 64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>



chain nodes :

1 2 3 4 5 6 7 8 9 22 23 24 25 26 45 46 47 48 49 50 51 53 54 55 56  
57 58 59 60 61 62 63 64 65 66 67 68 69 70 77 78

ring nodes :

11 12 13 14 15 16 17 18 19 20 21 31 32 33 34 35 36 37 38 39 40 41

chain bonds :

1-2 2-3 2-4 3-5 5-77 5-78 6-7 6-8 8-45 22-23 23-24 24-25 25-26 46-47 46-48  
48-51 49-50 49-53 54-56 55-57 56-58 56-59 56-62 57-60 57-61 57-63 63-66 64-66  
65-66 65-67 67-68 67-69 67-70

ring bonds :

11-12 11-16 12-13 13-14 14-15 15-16 17-18 17-21 18-19 19-20 20-21 31-32 31-36  
32-33 33-34 34-35 35-36 37-38 37-41 38-39 39-40 40-41

exact/norm bonds :

23-24 56-62

exact bonds :

1-2 2-3 2-4 3-5 5-77 5-78 6-7 6-8 8-45 11-12 11-16 12-13 13-14 14-15 15-16  
17-18 17-21 18-19 19-20 20-21 22-23 24-25 25-26 31-32 31-36 32-33 33-34 34-35  
35-36 37-38 37-41 38-39 39-40 40-41 46-47 46-48 48-51 49-50 49-53 54-56 55-57  
56-58 56-59 57-60 57-61 57-63 63-66 64-66 65-66 65-67 67-68 67-69 67-70

G2:[\*1],[\*2],[\*3],[\*4],[\*5],[\*6]

G3:CN,[\*7],[\*8],[\*9],[\*10],[\*11]

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 11:Atom  
12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom  
22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 31:Atom 32:Atom 33:Atom 34:Atom  
35:Atom 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:Atom 45:CLASS 46:CLASS 47:CLASS  
48:CLASS 49:CLASS 50:CLASS 51:CLASS 53:CLASS 54:CLASS 55:CLASS 56:CLASS 57:CLASS  
58:CLASS 59:CLASS 60:CLASS 61:CLASS 62:CLASS 63:CLASS 64:CLASS 65:CLASS 66:CLASS  
67:CLASS 68:CLASS 69:CLASS 70:CLASS 77:CLASS 78:CLASS

Element Count :

Node 9: Limited  
C,C1-10

Node 78: Limited  
C,C1-5